Cobra®

Cobra Electronics Corporation
6500 West Cortland Street
Chicago, IL60707

If You Think You Need Service

For technical assistance, please call our Automated Help Desk which can assist you by answering the most frequently asked questions about Cobra products.

(773) 889-3087

24 hours a day, 7 days a week.

A Consumer Service Representative can be reached through this same number 8:00 am - 8:00 pm, Monday through Friday, CST.

Technical assistance is also available on-line in the Frequently Asked Questions (FAQ) section at www.cobraelec.com or by e-mail to productinfo@cobraelec.com

If you think you need service call 1.773.889.3087

"If your product should require factory service please call Cobra first before sending your unit in. This will ensure the fastest turn-around time on your repair."

You may be asked to send your unit to the Cobra factory. It will be necessary to furnish the following in order to have the product serviced and returned.

1. For Warranty Repair include some form of proof-of-purchase, such as a mechanical reproduction or carbon or a sales receipt. If you send the original receipt it cannot be returned.
2. Send the entire product.
3. Enclose a description of what is happening with the unit. Include a typed or clearly print name and address of where the unit is to be returned.
4. Pack unit securely to prevent damage in transit. If possible, use the original packing material.
5. Ship prepaid and insured by way of a traceable carrier such as United Parcel Service (UPS) or First Class Mail: to avoid loss in transit to: Cobra Factory Service, Cobra Electronics Corporation, 6500 W. Cortland St., Chicago, IL 60707.
6. If the unit is in warranty, upon receipt of your unit it will either be repaired or exchanged depending on the model. Please allow approximately 3 to 4 weeks before contacting us for status. If the unit is out of warranty a letter will automatically be sent informing you of the repair charge or replacement charge. If you have any questions, please call 1.773.889.3087 for assistance.

Printed in Thailand

Part No. 480-278-P-001

Cobra® microTALK1™

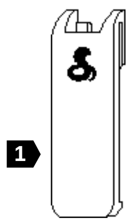
Operating Instructions for your Cobra MircoTalk FRS 100

Family Radio Service 2 Way Radio

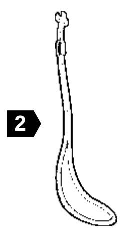


"Ingenious Products for Easier Communication."

1



2



The Family Radio Service Story

Ever wish you could talk to someone who wasn't within earshot? Like contacting ski partners back at the lodge? Or letting a friend know how to find you in a busy mall? Cobra's MicroTalk FRS 100 is a great way for friends or family to increase their fun–and safety–by staying in touch while on the go.

The FCC (Federal Communications Commission) has created 14 license free frequency bands, or channels, called Family Radio Service (FRS) frequencies. Two of these 14 channels (channel 8 and 13) are easily accessed on your Cobra FRS radio. These channels are in the UHF (Ultra High Frequency) band which means great penetration through buildings, thick forests, hills, and other dense structures. They are also FM (Frequency Modulation) signals which means crystal clear reception even in crowded noisy environments.

FCC Warnings

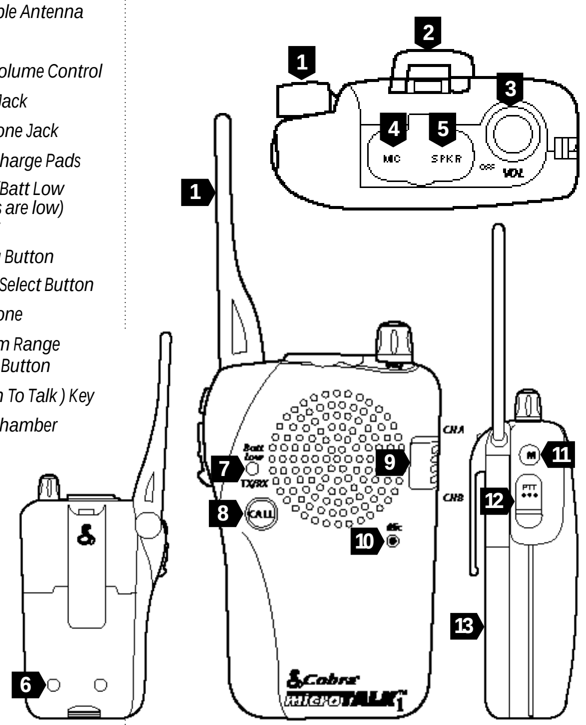
Replacement or substitution of transistors, regular diodes or other parts of a unique nature, with parts other than those recommended by Cobra, may cause a violation of the technical regulations of part 95 of the FCC Rules, or violation of Type Acceptance requirements of Part 2 of the Rules.

Included with your MicroTalk

1. Removable Belt Clip
2. Wrist Strap

Controls and Indicators

1. *Retractable Antenna*
2. *Belt Clip*
3. *On/Off Volume Control*
4. *Speaker Jack*
5. *Microphone Jack*
6. *Battery Charge Pads*
7. *TX (talk)/Batt Low (batteries are low) Indicator*
8. *Call/Ring Button*
9. *Channel Select Button*
10. *Microphone*
11. *Maximum Range Extender Button*
12. *PTT (Push To Talk) Key*
13. *Battery Chamber*



Thank you for purchasing the Cobra FRS 100 2-way Radio. Properly used, this Cobra product will give you many years of reliable service.

Customer Support

Should you encounter any problems with the product or not understand its many features, please refer to this owner's manual. If, after referring to the manual, you still need help, call Cobra Customer Service at 773.889.3087.

Cobra Customer Service

Live operators are available M-F 8:00 am - 8:00 pm CST at: 773.889.3087

Automated Technical Assistance available 24 hours a day, seven days a week. E-mail questions to: productinfo@cobraelec.com

Cobra on the World Wide Web: Frequently Asked Questions (FAQ) can be found on-line at: www.cobraelec.com

How to Use Your Cobra microTALK™1 2-Way Radio

Contents

Features of This Product

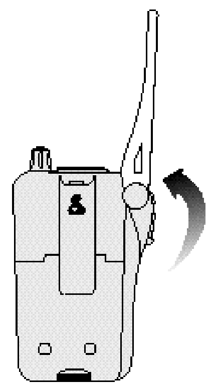
- *UHF FM Frequencies*
- *No License Required*
- *No Air Time Fees*
- *Up To 2 Mile Range*
- *2 User Selectable Channels*
- *Talk Confirmation Tone*
- *Call/Ring Button*
- *Recharging Pads*
- *Retractable Antenna*
- *Battery Saver Circuity*
- *Auto Squelch*
- *Wrist Strap/Belt Clip*

Operation

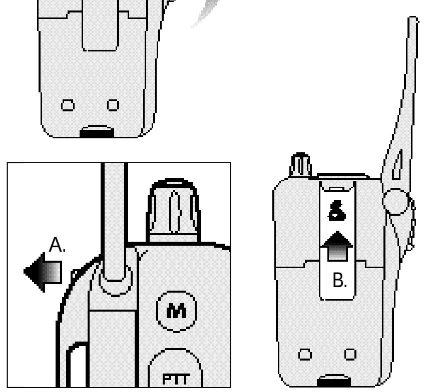
Battery Installation

Note
Batteries not included with Microtalk 2-way radio.

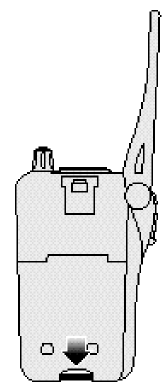
Install Batteries



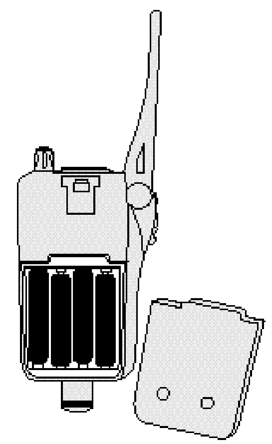
❶ *Clear* antenna.



❷ *Remove* belt clip by (A.) pulling tab out and (B.) *Sliding* belt clip up and off unit.



❸ *Pull* lock tab down to remove battery cover.



❹ *Insert* four “AAA” batteries. Position batteries according to polarity markings.

Note
Always use high quality alkaline or NiMH batteries.

Incorrect positioning can damage both the batteries and the unit.

Only the Cobra NiMH battery (Part# FA-BP) pack can be recharged

See Accessories on page 19. Charge ports for recharging NiMH (Nickel Metal Hydride) battery pack are located on back of unit.

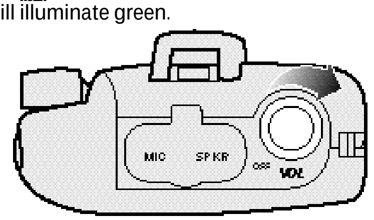
Note
When batteries are low or need charging the BATT LOW indicator will blink red. Replace alkaline batteries or recharge NiMH battery pack.

Turning On Your MicroTalk

Note
Whenever the unit is on you can receive communications.

Turning On Your MicroTalk

Rotate ON - OFF Volume Control ◎ *clockwise*. An audible "tone" will indicate the unit is on and the TX/RX indicator on the front of the unit will illuminate green.



Auto Squelch

Auto Squelch

Your MicroTalk is equipped with Auto Squelch, which automatically shuts off weak transmissions and unwanted noise due to terrain conditions or if you have reached your range limit.

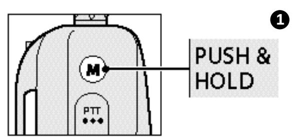
Maximum Range Extender

Note
To learn more about the range of your MicroTalk, see page 9.

Range is dependent on battery condition and geographic territory.

Maximum Range Extender

Auto squelch can be temporarily removed to allow all signals to enter by pressing the Ⓜ M button (Maximum Range Extender).



❶ *Push and hold* the Ⓜ M/RANGE EXTENDER button to allow all signals to enter.

Operation

Select Channel

Note
Units must be on same channel to communicate. Choose Channel A or B.

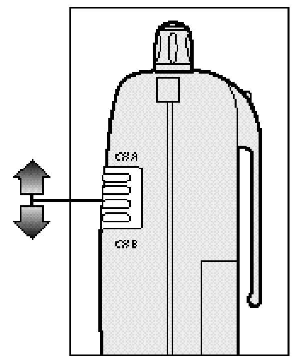
Note
You can also communicate with other 2-way radios (some have as many as fourteen channels).

Channel A = Channel 8 on other units
Frequency is 467.5625

Channel B = Channel 13 on other units
Frequency is 467.6875

Select Channel

❶ Turn on the MicroTalk 2-Way Radio.



❷ *Select* channel by moving the channel button up or down. Select either Channel A or B for optimum clarity.

Auto Battery Save

Note
The Auto Battery Save Circuit does not effect the unit's ability to receive incoming transmissions.

Auto Battery Save

Your FRS 100 has a unique circuit designed to extend battery life. If there are no transmissions within 10 seconds, the unit will automatically switch to battery save mode.

Calling Another Party

Note

Units must be on same channel to communicate. Choose Channel A or B.

Note

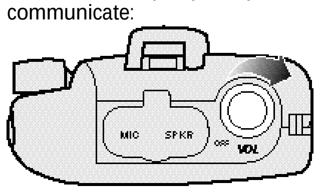
You can also communicate with other 2-way FRS radios (some have as many as fourteen channels) like the MicroTalk 250 or 300.

Channel A = Channel 8 on other units
Frequency is 467.5625

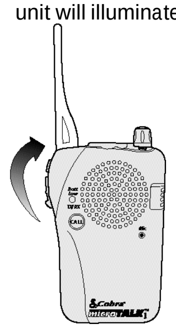
Channel B = Channel 13 on other units
Frequency is 467.6875

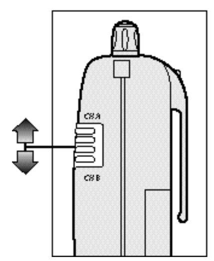
Calling Another Party

To alert another party that you wish to communicate:



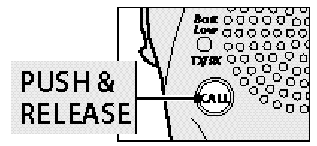
❶ *Turn on* your MicroTalk 2-way radio.
An audible "tone" will indicate the unit is on and the TX/RX indicator on the front of the unit will illuminate green.





❷ *Place* antenna in full upright position.

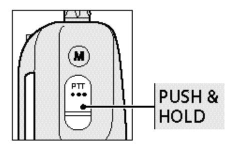
❸ *Select* Channel A or Channel B by moving the CHANNEL button up or down.

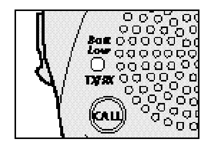


❹ *Push and release* CALL button. The unit you are calling will hear a two second ring/tone.

Talking To Another Party

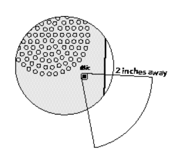
To send your outgoing message:

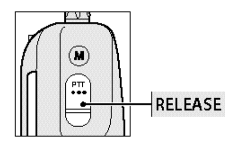




❶ *Push and hold* PTT button.

❷ The TX/RX indicator will illuminate red.





❸ Hold mic about 2 inches from mouth. Speak in a normal voice.

❹ *Release* PTT button and listen for response.

Note

Your incoming "Call" signal level is dependent on your unit volume setting.

Talking To Another Party

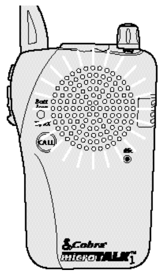
Note

While PTT button is depressed you cannot receive incoming calls.

Operation

Talk Confirmation Tone

Talk Confirmation Tone



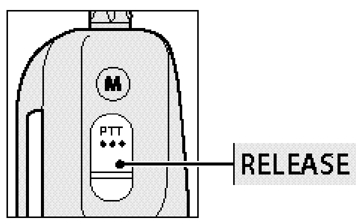
Your listener will hear an audible tone when you release the PTT button.

This alerts the other party that you are finished talking and it's OK for them to begin talking.

Listening For Another Party

Listening For Another Party

When finished talking:



1. *Release* PTT button to receive incoming transmissions.

Your MicroTalk is always in listening mode when the PTT button is not pressed.

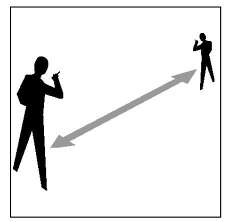
Note

While PTT button is depressed you cannot receive incoming calls.

MicroTalk Range

MicroTalk Range

Your MicroTalk Radio has a range of up to 2 miles. This effective range can be shortened under some conditions.



1. Under flat, open conditions you will experience the MicroTalk's maximum range.



2. Range can be reduced by buildings and foliage in the path of the signal.



3. Range will be further reduced by dense foliage and hilly terrain.

To achieve maximum range the auto squelch can be overridden. Refer to Maximum Range Extender section on page 4.

MicroTalk 2-Way Radio Can Make Life Easier and Safer

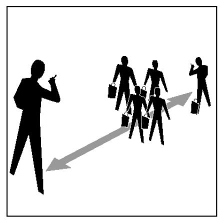
MicroTalk 2-Way Radio Can Make Life Easier and Safer

As you become familiar with your MicroTalk Radio you will find many of your own uses for the unit.

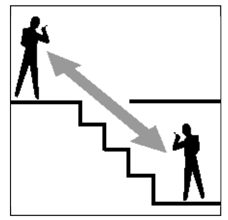
Some suggestions include:



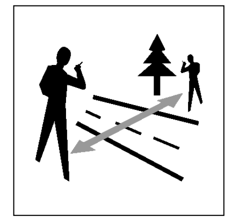
1. Talking with fellow hikers.



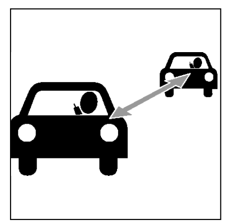
2. Keeping track of the kids in a shopping mall.



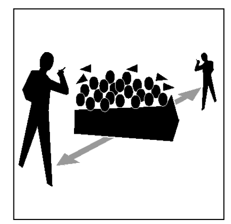
3. Communicating between basement and first, second or third floor.



4. Talking to a neighbor or a friend.



5. Checking on traveling companions in another car.



6. Agree on a meeting spot after an event.

External Microphone/ Speaker Jack

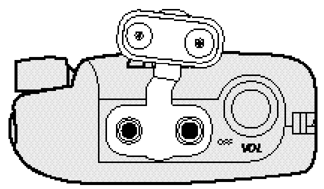
Note

External microphone/ speaker is not included with the unit. See Accessories on page 19 for available units.

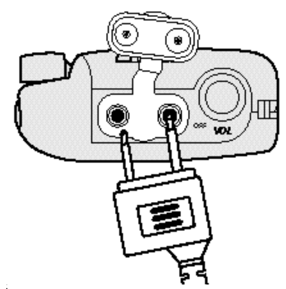
External Microphone/Speaker Jack

Your MicroTalk 2-Way Radio can be fitted with an external microphone/speaker, (not included) freeing your hands for other tasks.

To attach the external microphone/speaker:



❶ Open MIC/SPKR tab on top of unit.



❷ Insert jack into the MIC/SPKR ports.

Frequency Ranges

The MicroTalk unit represents one of the most advanced FM two-way radios used.

Channel	FRS Channel	Channel Frequency In MHz
A	8	467.5625
B	13	467.6875

Caring for Your MicroTalk Radio

Note

Modifying or tampering with the radio's internal components can cause malfunction and will invalidate the warranty. If your radio is not performing as it should, please call Cobra at 773.889.3087. Do not return the unit to the retailer.

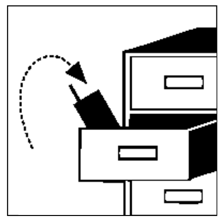
Caring for Your MicroTalk Radio

The MicroTalk 2 Way Radio will give you years of service if cared for properly.

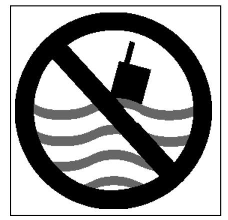
Here are some suggestions:



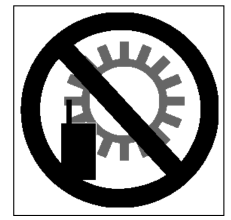
1. Handle unit gently.



2. Keep away from dust.



3. Never place the unit in water or in a moist place.



4. Avoid exposure to extreme temperatures.

I.GENERAL SPECIFICATIONS

A.GENERAL
CH=2 CHANNELS:467.5678 and 467.6875 Mhz

B. RECEIVER

	UNIT	NOMINAL	LIMIT
1.SENSITIVITY			
FOR 12 DB SINAD	uV	0.25	0.4
FOR CALL SIG.DETECTION uV	0.2	0 0.4	
2.MAX. AUDIO OUTPUT @10% THD	MW	100	±10
3.MAX.S/N RATIO @ 1mV RF INPUT	DB	45	40
4.SQUELCH			
a) SENS.	uV	0.2	0.3
b) ATTACK TIME	mS	120	150
c) CLOSING TIME	mS	200	250
5. AUDIO FREQUENCY RESP.			
@ 300 HZT	DB	-6	±3
@ 3000 HZ	DB	-6	±3
6.SIGNAL DISPLACEMENT BW	+/-KHZ	5	4
7.ADJACENT CH.REJECTION	DB	55	50
8.INTERMODULATION REJECTION	DB	55	50
9.SPURIOUS RESPONSE REJECTION	DB	65	60

C.TRANSMITTER

	UNIT	NOMINAL	LIMIT
1. EFFECTIVE RADIATED POWER	mW	500	300
2. CARRIER FREQ.STABILITY	IHZ	500	1000
3. MODULATION LIMITING	3.0	5.0	
4. CARRIER ATTACK TIME	mS	80	100
	UNIT	NOMINAL	LIMIT
5. AUDIO FREQUENCY RESPONSE			
@ 300 HZ	DB	-6	±3
@ 3000 HZ	DB	-6	±3
6. AUDIO DISTORTION	%	3	5
7. HUM NOISE	DB	45	40
8. TRANSIENT FREQ.BEHAVIOR			
a) TX ON	mS	30	35
b) TX OFF	mS	5	10

D. POWER SUPPLY

1. BATTERY LIFE (1:1:8 RATIO)	HR	24	20
2. BATTERY	V	4.8	

Limited Two Year Warranty

Cobra Electronics Corporation

6500 West Cortland Street
Chicago, Illinois 60707

COBRA ELECTRONICS CORPORATION warrants that its COBRA 2-Way FRS Radios, and the component parts thereof, will be free of defects in workmanship and materials for period of two (2) years from the date of first consumer purchase. This warranty may be enforced by the first consumer purchaser, provided that the product is utilized within the U.S.A.

COBRA will,without charge, repair or replace, at its option, defective 2-Way FRS radios, products or component parts upon delivery to the COBRA factory Service Department, accompanied by proof of the date of first consumer purchase, such as a duplicated copy of a sales receipt.

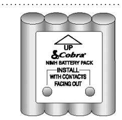
You must pay any initial shipping charges required to ship the product for warranty service, but the return charges will be at Cobra's expense, if the product is repaired or replaced under warranty.

Exclusions: This limited warranty does not apply; 1) to any product damaged by accident;2) in the event of misuse or abuse of the product or as a result of unauthorized alterations or repairs;3) if the serial number has been altered, defaced or removed;4) if the owner of the product resides outside the U.S.A.

All implied warranties, including warranties of merchantability and fitness for a particular purpose are limited in duration to the length of this warranty. COBRA shall not be liable for any incidental, consequential or other damages;including, without limitation, damages resulting from loss of use or cost of installation.

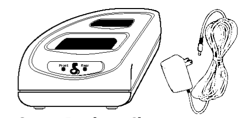
Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.

Optional Accessories



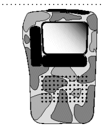
(1) NiMH Rechargeable Battery Pack

High performance Nickel Metal Hydride battery pack for multiple recharging
FA-BP $29.95



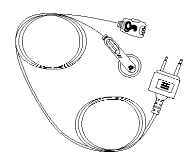
2 Port Desktop Charger

Charges your MicroTalk Radio and (1) NiMH battery pack
FA-CH $29.95



Camouflage Cover Carrying Case

Durable nylon case perfectly fits your FRS radio
FA-CC $19.95



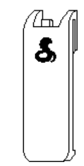
Ear Bud Mic with PTT

Integrated speaker/mic adapter that fits in your ear. Includes shirt clip. MA-EBM $29.95



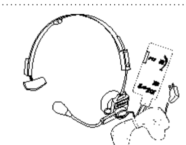
Lapel Microphone

Remote microphone/speaker connection.
CA-40 $25.95



Replacement Belt Clip

FA-BC $4.95



Vox Mic

VOX (Voice Operated Transmitter) adapter allows you hands-free operation.
MA-VOX $49.95

You Can Find These Fine Accessories At Your Local Cobra Dealer
If you wish, you can order directly from Cobra.

Order by phone
Call 1.773.889.3087
(Press 1 from the main menu) 8 a.m.-8 p.m. M-F CST.)

Order by mail or fax
Please fill out order form on next page, and mail/fax directly to Cobra.

Accessory Order Form

Item #	Description	Cost Ea.	Qty.	Amount
FA-BP	NiMH Rechargeable Battery Pack	$29.95		
MA-EBM	Ear Bud Mic with PTT	$29.95		
MA-VOX	Vox Mic	$49.95		
FA-CH	2 Port Desktop Charger	$29.95		
CA-40	Lapel Microphone	$25.95		
FA-CC	Camouflage Cover Carrying Case	$19.95		
FA-BC	Replacement Belt Clip	$4.95		

Subtotal	
(Tax if applicable)	
Shipping/handling	$4.00
Total	

Prices subject to change without notice.

Tax Table
Illinois residents add 7%
Cook Co. residents add .75% (7.75% total)
Chicago residents add 1% (8.75% total)

Indiana residents add 5%
Michigan residents add 4 %
Minnesota residents add 6%
Ohio residents add 6%
Wisconsin residents add 5%

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or call 1.773.889.3087
(Press 1 from the main menu)
8:00 am - 8:00 pm,M-F, CST.

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Cobra Accessories Dept.
6500 West Cortland St. Chicago, IL 60707

Please print clearly

Name ____________________

Address (No P.O. Box) ____________________

City ____________________ State __________

Zip ____________________

Telephone (___)____________________

Credit Card No. ____________________ Exp. Date __________

Customer Signature ____________________

Circle One: Visa MasterCard Discover

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